

Amendment  
Serial No. 10/733,224

**IN THE DRAWING**

Please replace the original FIG. 1 and 2 with the FIG. 1 and 2 contained in the Replacement

Sheet:

REMARKS

Claims 1-20 are pending in the application. Claims 1-20 stand rejected. Claims 1 and 14 are independent claims.

Figures 1 and 2 stand objected for allegedly failing to label the figures as prior art. In response, the Applicant submits new FIG. 1 and 2 with the designations “PRIOR ART.”

Claims 8 and 20 stand rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the enablement requirement. In particular, the Patent Office indicates that each claim contains subject matter which was not described in the specification.

The Applicant respectfully submits that 35 U.S.C. 112, second paragraph, states that

The specification shall conclude with one or more claims

particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

(emphasis added). As such, claims are a part of the specification; and each subject matter recited in the claims is contained in the specification, even if such subject matter is absent in the Detailed Description portion of the specification, (see also MPEP 2163.I, second paragraph (“It is now well accepted that a satisfactory description may be in the claims... or any other portion of the originally filed specification.”)).

Moreover, FIG. 3 of the present application sufficiently describes the subject matter recited in claims 8 and 20, and enables a person of ordinary skill in the art to understand or use the present invention without undue experiment (see *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916); see also MPEP 2164.01).

As such, the Applicant respectfully submits that claims 8 and 20 comply with the requirements of the 35 U.S.C. 112, first paragraph. The Applicant respectfully requests withdrawal of the rejections.

Claims 5, 10, and 17 stand rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. According to the Patent Office, the features the “second collimating lens system,” the “second convergence lens system,” and the “second glass window” are indefinite as corresponding the “first collimating lens system,” the “first convergence lens system,” and the “first glass window” are not recited in each claim or the base claims.

In response, the Applicant amends each of the claims 5, 10, and 17 such that claims 5, 7, and 10 recite the “first collimating lens system,” the “first convergence lens system,” and the “first glass window.” The Applicant respectfully request withdrawal of the rejections.

Claims 1 and 14 stand rejected under 35 U.S.C §103(a) as allegedly being obvious over the Admitted Prior Art (the “APA”) in view of Tiemeijer *et al.* (L.F. Tiemeijer *et al.*, *High-Gain 1310nm Semiconductor Optical Amplifier Modules with a Built-in Amplified Signal Monitor for Optical Gain Control*, IEEE Photonics Tech. Lett., vol. 9, No. 3 (March 1997)) (“Tiemeijer”).

Claims 1 and 14 recite a semiconductor optical amplifier (SOA) module apparatus comprising “a first isolator... that is configured to separate the ASE light received from the first stage of the SOA from a traveling path of the input optical signal at a prescribed angle, and that is configured to transmit the ASE light separated from the traveling path through the first isolator and to the first monitor photodiode.”

The support for claims 1 and 14 can be found in FIG. 3 and 4 and in the specification, at page 9, line 13-18.

To reject a claim under section 103, the United States Court of Appeals for the Federal Circuit required a showing of an unrebutted *prima facie* case of obviousness (*In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998)). According to United States Court of Customs and Patent Appeals, the predecessor to the Federal Circuit, the *prima facie* case cannot

be established if the prior art references, among others, does not teach all features in the claims (*In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1970); see also MPEP 2143.03).

In rejecting the present claims, the Patent Office argues that isolator 143 contained in the APA teaches the isolator of claims 1 (the present Office Action, page 4, line 1-4).

The APA, as noted in the Background portion of the present specification, discloses a SOA module comprising a first isolator. According to the Background portion, the first isolator 143 contained in the APA, however, simply cuts off an optical signal transmitted back from the convergence lens system 144 such that the optical signal transmitted back from the convergence lens system 144 will not be detected by the detector 162 (page 3, line 15-17). Nowhere is there a disclosure that the APA comprises “a first isolator... that is configured to separate the ASE light received from the first stage of the SOA from a traveling path of the input optical signal at a prescribed angle, and that is configured to transmit the ASE light separated from the traveling path through the first isolator and to the first monitor photodiode,” as recited in claims 1 and 14.

Therefore the APA does not teach the first isolator of claims 1 and 14.

Tiemeijer, as read by the Applicant, discloses an SOA module (FIG. 1). Tiemeijer, however, does not contain an isolator, as does the SOA module of claims 1 and 14.

In addition, Tiemeijer does not contain a component that transmits the ASE light separated from the traveling path through the first isolator and to the first monitor photodiode (FIG. 1). Instead, the SOA module of Tiemeijer comprises, at best, a left aspherical lens that contains an incident surface which reflects the ASE received from the left end of the SOA to the first photodetector, the lens that does not transmit or pass the ASE received the left end of the SOA through the lens and to the first photodiode (id.).

As such, Tiemeijer does not teach an SOA module comprising “a first isolator... that is configured to separate the ASE light received from the first stage of the SOA from a traveling path of the input optical signal at a prescribed angle, and that is configured to transmit the ASE light separated from the traveling path through the first isolator and to the first monitor photodiode,” as recited in claims 1 and 14.

As neither the APA nor Tiemeijer teaches the first isolator of claims 1 and 14, two references, alone or in combination, do not teach all features of claims 1 and 14, and two references, alone or in combination, do not render claims 1 and 14 obvious.

The Applicant respectfully request withdrawal of the rejections.

Other claims in this application are each dependent on the independent claims 1 and 14 and believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

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Should the Examiner deem that there are any issues which may be best resolved by telephone, please contact Applicant's undersigned representative at the number listed below.

Respectfully submitted,



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(Signature and Date)